

WHAT IS CLAIMED IS:

1. A system for managing pathogens and irritants comprising the steps of:
  - a. washing skin with an antibacterial hand soap;
  - b. applying an antibacterial skin barrier lotion; and
  - c. spraying an antibacterial surface cleaner on hard surfaces in an area.
2. A validation and monitoring kit used to determine if one has complied with the application of an antibacterial hand soap or a skin barrier lotion, said validation and monitoring kit comprising: a bottle with a removable cap, a wick, and a dye diluted in water.
3. An emulsion formulation for cleansing the skin comprising: purified water in an amount of about 85 to about 99.5 percent by weight, N, N-bis-(2-OH-ethyl) lauramide in an amount of about 0.25 to about 5 percent by weight, a sodium sulfonate of C<sub>14-16</sub> olefin in an amount of about 0.05 to about 3 percent by weight, polyethylene glycol lauryl ether sodium sulfuric acid in an amount of about 0.03 to about 3.5 percent by weight, polyquaternium-7 in an amount of about 0.015 to about 2.5 percent by weight, chlorhexidine in an amount of about 0.25 to about 4 percent by weight, an antioxidant in an amount of about 0.05 to about 1 percent by weight and phenolic in an amount of about 0.015 to about 1.75 percent by weight.
4. The emulsion formulation of claim 3 additionally comprising a plant fatty acid in an amount of about 0.02 to about 1.5 percent by weight.
5. An emulsion formulation for topical application to the skin comprising: purified water in an amount of about 80 to 99.5 percent by weight, a group selected from the group consisting of waxy starch and a polysaccharide in an amount of about 0.5 to about 15 percent by weight, a group selected from the group consisting of

petrolatum and any other mineral oil in an amount of about 0.125 to about 12 percent by weight, other plant or vegetable oils or extracts in an amount of about 0.01 to about 8 percent by weight, a viscosity stabilizer in an amount of about 0.01 to about 3 percent by weight, a viscosity enhancer in an amount of about 0.01 to about 3 percent by weight, an antioxidant or stabilizer in an amount of about 0.01 to about 5 percent by weight,  $\text{MgCl}_2$  in an amount of about 0.01 to about 1 percent by weight, methyl paraben in an amount of about 0.01 to about 1 percent by weight, propyl paraben in an amount of about 0.01 to about 1 percent by weight, citricidal in an amount of about 0.01 to about 3 percent by weight, benzalkonium chloride in an amount of about 0.01 to about 2 percent by weight, and tri-N-butyl  $\text{PO}_4$  in an amount of about 0.01 to about 1 percent by weight.

6. An emulsion formulation of claim 5 additionally comprising benzoic acid in an amount of about 0.01 to about 1 percent by weight.
7. An emulsion formulation of claim 5 additionally comprising boric acid in an amount of about 0.01 to about 1 percent by weight.
8. An emulsion formulation of claim 5 additionally comprising benzoyl peroxide in an amount of about 0.05 to about 3 percent by weight.
9. A spray formulation for application to surfaces comprising: purified water in an amount of about 85 to about 99.5 percent by weight, sodium metasilicate, nonoxynol-9 in an amount of about 0.02 to about 2.5 percent by weight, butyl cellusolve in an amount of about 0.05 to about 5.5 percent by weight, barquat 50 in an amount of about 0.05 to about 3.5 percent by weight, and barlox 12 in an amount of about 0.05 to about 3 percent by weight.
10. An emulsion formulation of claim 9 additionally comprising benzoyl peroxide in an

amount of about 0.05 to about 3 percent by weight.

11. A method of validating and monitoring to see if one has complied with the application of an antibacterial hand soap or a skin barrier lotion comprising the steps of: touching an applicator tip containing a dye to any topical surface, pulling the applicator tip along said surface for about 1 to 1 ½ inches, drying said dye for about 5-8 seconds, wiping said surface with a tissue and observing whether there is a colored stain on said surface.
12. The method of claim 11, wherein said topical surface is human hands.
13. The method of claim 11, wherein said dye is a blue-colored dye.
14. The method of claim 13, wherein said blue dye is crystal violet.